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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/008,228	11/07/2001	Deborah S. Schnur	169.12-0507	6958

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MINNEAPOLIS, MN 55415-1002

EXAMINER

CASTRO, ANGEL A

ART UNIT	PAPER NUMBER
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2653

19

DATE MAILED: 02/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/008,228

Applicant(s)

SCHNUR ET AL.

Examiner

Angel A Castro

Art Unit

2653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 6,11,12,14-16 and 20-24 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17-19 is/are allowed.
- 6) ☒ Claim(s) 1-3,5,7,9,10 and 13 is/are rejected.
- 7) ☒ Claim(s) 4, 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 17.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

This Office Action is in response to Amendment C filed 12/04/03.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 5, 7, 9-10 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Matthews (U.S. Pat. 4,605,977).

Regarding claim 1, Matthews discloses a slider for supporting a transducing head 28 proximate a rotating disc (figures 5-6 and 12), the slider comprising:

a slider body 10, including a primary air bearing 12,16 and a secondary air bearing (shown in figure 12, but not labeled), the slider body having a disc opposing face bounded by a leading edge and a trailing edge wherein the transducing head 28 is located on the disc opposing face proximate the trailing edge and on the secondary air bearing; and

means 40, 42 for permitting vertical movement of the transducing head with respect to the slider body in response to local disc, surface topography to maintain head media spacing (HMS) between the transducing head and the disc at a substantially constant separation distance as the slider flies above the disc wherein the means are exposed at the disc opposing face (column 3, lines 32-36).

Regarding claim 2, Matthews discloses that the means for permitting vertical movement of the transducing head is an interface connecting the primary air bearing to the secondary air bearing (see figure 6 and 12).

Regarding claim 3, Matthews discloses that the interface 40, 42 displace the secondary air bearing vertically with respect to the primary air bearing (column 3, lines 37-41).

Regarding claims 5 and 9-10, Matthews discloses that the interface 40, 42 is less stiff than the primary air bearing (column 5, lines 47-53).

Regarding claim 7, Matthews discloses a slider for supporting a transducing head proximate a rotating disc (figures 5-6 and 12), the slider comprising:

- a primary air bearing 12, 16, having a disc opposing face bounded by a leading edge and a first trailing edge wherein an air bearing surface is defined on the disc opposing face;

- a secondary air bearing having a disc opposing face bounded by a front edge and a second trailing edge wherein the air bearing surface is defined on the disc opposing face, the air bearing surface having a pad 26 proximate the second trailing edge wherein the transducing head 28 is located on the pad (see figure 5); and

- an interface 40, 42 having a disc opposing face, the interface connecting the secondary air bearing to the primary air bearing wherein the interface displaces the transducing head vertically with respect to the primary air bearing to maintain head media spacing (HMS) between the transducing head and the disc at a substantially constant separation distance as the slider flies above the disc.

Regarding claim 13, Matthews discloses that the pad modulates in response to local disc surface topography to maintain the HMS substantially constant (column 3, lines 32-37).

Allowable Subject Matter

3. Claims 17-19 allowed.
4. Claims 4 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

5. Applicant's arguments with respect to claims 1-5, 7-10, 13, 17-19 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yanagisawa (U.S. Pat. 6,487,045) discloses a magnetic disc apparatus; Kasahara (U.S. Pat. 5,764,432) discloses a recording and reproducing head slider; Kubo et al (U.S. Pat. 4,901,185) discloses a magnetic head device; Lemke (U.S. Pat. 4,669,011) discloses a slider assembly with dynamically positionable transducer.
7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until

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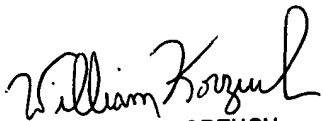
after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angel A Castro whose telephone number is 703-308-8435. The examiner can normally be reached on Monday through Thursday, 8 AM to 6 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William R Korzuch can be reached on 703-305-6137. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Angel Castro, Ph.D.


WILLIAM KORZUCH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600